

**BOARD OF ENVIRONMENTAL REVIEW  
AGENDA ITEM  
EXECUTIVE SUMMARY FOR ACTION ON RULE ADOPTION**

**Agenda Item # \_III.C.1.\_\_(Adoption of Proposed Rule Amendments)**

**Agenda Item Summary** – The Board is considering adoption of amendments to:

1. Department Circular DEQ-7 (DEQ-7), which is incorporated by reference in ARM 17.24.645, 17.24.646, 17.30.502, 17.30.619, 17.30.702, and 17.30.1001; and
2. ARM 17.30.607 through 17.30.611, 17.30.621 through 17.30.629, 17.30.650 through 17.30.657, and 17.30.715, which are included in the surface water quality standard and nondegradation rules found in ARM Title 17, Chapter 30, Subchapters 6 and 7.

DEQ-7 is incorporated by reference in rules adopted by the Department under the sanitation in subdivision, state superfund, underground storage tank, and solid waste statutes; therefore, this is a joint Board/Department rulemaking.

**List of Affected Board Rules** – ARM 17.24.645, 17.24.646, 17.30.502, 17.30.607 through 17.30.611, 17.30.619, 17.30.621 through 17.30.629, 17.30.650 through 17.30.657, 17.30.702, 17.30.715, and 17.30.1001.

**List of Affected Department Rules** – ARM 17.36.345, 17.55.109, 17.56.507, 17.56.608 (all changes are incorporation by reference of DEQ-7 and updates to the more current version of 40 CFR 136).

**Affected Parties Summary** – These proposed rule amendments may affect parties applying for discharge permits to state waters; parties required to remediate or monitor surface or ground water quality due to real or potential contamination from remediation sites, including underground storage tank sites; and parties subject to plan review for public water supply, wastewater treatment systems, or subdivisions. Also affected would be strip and underground mine sites required to monitor ground water and surface water. Additionally, the agricultural community may be affected by the proposed changes and additions to pesticide standards.

**Scope of Proposal** – The Department requests the Board adopt the amendments to the above-stated rules as proposed in MAR 17-389, published on December 23, 2016, and incorporate DEQ-7 with the most recent reference dose for pinoxaden adopted in EPA’s January 2017 Human Health Benchmarks for Pesticides in drinking water.

**Background** –DEQ requests the Board update DEQ-7 and revise several water quality standards rules to support DEQ needs, incorporate public comment, and make consistent with updated federal requirements.

In general, the amendments to DEQ-7 are proposed to ensure that the numeric water quality criteria reflect the best current science, to correct errors, to provide clarity and consistency of terminology, and to avoid duplication with narrative standards in the surface water rules.

The proposed changes to DEQ-7 include several grammar, wordsmithing, and technical edits, error corrections, and reference updates. Changes also include adoption of 80 new and updated National Recommended Water Quality Criteria (NRWQC) for the protection of human health, 67 updated

pesticide health advisories recalculated based on EPA's new human exposure inputs, five new pesticide health advisories, five updated maximum contaminant levels (human health), and two new NRWQC for the protection of aquatic life. The sources of information for 17 human health criteria have changed. The toxic and carcinogenic categories of four pollutants have changed. Additionally, references to four narrative criteria in ARM 17.30 subchapter 6 have been removed.

The proposed revisions to Subchapters 6 and 7 of the water quality rules fall into four categories: (1) addition of "most probable number" (mpn) as acceptable units for E. coli measurements; (2) modification of surface water classifications to more specifically define start and end points (by latitude and longitude) and to remove tribal waters from Montana's use classifications because Montana does not have jurisdiction over tribal waters and respects standards imposed by the jurisdictional agencies for these waters; (3) incorporation by reference of the compliance schedule authorizing provision in the Montana Pollutant Discharge Elimination System rules, and amendment of the 40 CFR 136 reference in several rules to the more current 2015 version of the regulation; and (4) clarification in the nondegradation rules that the Clark Fork River is subject to nondegradation review for nutrients.

**Hearing Information** – Andres Haladay conducted a public hearing on February 10, 2017 on the proposed amendments. The public comment period closed February 20, 2017. One written comment was received. This comment pointed out that EPA had updated their Human Health Benchmarks for Pesticides in 2017. As part of this update, the reference dose used to calculate pinoxaden in DEQ-7 was updated. Therefore, DEQ is proposing a revision to draft DEQ-7 to include an updated human health standard for pinoxaden. This requires no change to the proposed rule amendments noticed in the Notice of Public Hearing on Proposed Amendment (MAR 17-389). The Presiding Officer's Report and the draft Notice of Adoption, with the public comment and proposed response, are attached to this executive summary.

**Board Options** – The Board may:

1. Adopt the proposed amendments as set forth in the attached Draft Notice of Amendment;
2. Adopt the proposed amendments with revisions that the Board finds are appropriate and that are consistent with the scope of the Draft Notice of Amendment and the record in this proceeding; or
3. Decide not to adopt the amendments.

**DEQ Recommendation** – The Department recommends that the Board adopt the HB521/311 analyses, the Presiding Officer's Report, and the proposed amendments with modification as set forth in the attached draft Notice of Amendment.

**Enclosures** –

1. Notice of Public Hearing on Proposed Amendment
2. Presiding Officer's Report
3. Public Comment
4. HB 521 and 311 Analysis
5. Draft Notice of Amendment

## MEMORANDUM

**To:** Board of Environmental Review

**From:** Kirsten H. Bowers  
DEQ Attorney

**Re:** HB 521 Analysis (Stringency) and HB 311 Takings Checklist  
  
MAR Notice No. 17-389

In the matter of the amendment of ARM 17.30.502, 17.30.607 through 17.30.611, 17.30.619, 17.30.621 through 17.30.629, 17.30.650 through 17.30.657, 17.30.702, 17.30.715, and 17.30.1001, pertaining to Montana water quality standards, and incorporation by reference of Department Circular DEQ-7, "Montana Numeric Water Quality Standards," in Montana water quality standards rules.

**Date:** March 31, 2017

### HB 521 Analysis

The Board's authority to adopt the proposed rules is found in the Montana Water Quality Act (MWQA) at § 75-5-301, MCA. Pursuant to House Bill 521, codified at § 75-5-203, MCA, the Board may not adopt a rule that is more stringent than comparable federal regulations or guidelines that address the same circumstances, unless the Board makes certain written findings.

Most of the proposed changes to Department Circular DEQ-7 ("DEQ-7") were made to bring Montana's water quality standards up to date with comparable federal regulations. This includes adoption of 80 updated National Recommended Water Quality Criteria for the protection of human health in accordance with EPA's 2015 updates. It also includes revision and addition of 72 human health standards based on health advisories calculated by EPA and DEQ. These standards were revised using EPA's 2015 adopted human exposure inputs and any other new science available to EPA. Also updated were five human health standards based on EPA Safe Drinking Water Act Maximum Contaminant Levels. Additionally, two aquatic life standards were updated based on revised National Recommended Water Quality Criteria for the protection of aquatic life. Other proposed changes to DEQ-7 include grammar, wordsmithing, and technical edits, and correction of errors. There are no changes proposed to DEQ-7 that are more stringent than comparable federal regulations.

Likewise, most of the proposed amendments to the water quality standards rules were made to bring Montana's water quality standards up to date with federal regulations. For example, the proposed amendments remove tribal waters from Montana's use classes because Montana does not have jurisdiction over these waters and honors federal and tribal jurisdictional boundaries. The reference in Montana's water quality standards rules to 40 CFR 136 has been updated to the most current version of the federal regulation. The proposed rule amendments add a federally-approved method of Escherichia coli measurement. Finally, a reference to the compliance schedule authorizing provision in the Montana Pollutant Discharge Elimination System rules has been added to the water quality standards rules in order to fulfill federal requirements. Remaining proposed changes include: addition of latitude and longitude to better identify use class stream segments; and clarification that new and increased sources of pollutants discharged into the Clark Fork River are subject to nonsignificance reviews for nutrients. There are no changes proposed to the water quality standards rules that are more stringent than comparable federal regulations.

#### Private Property Assessment Act

The Montana Private Property Assessment Act at §§ 2-10-101 – 2-10-112, MCA, requires that, prior to adopting a proposed rule that has taking or damaging implications for private real property, an agency must prepare a taking or damaging impact statement. An "action with taking or damaging implications" means:

[A] proposed state agency administrative rule, policy, or permit condition or denial pertaining to land or water management or to some other environmental matter that if adopted and enforced would constitute a deprivation of private property in violation of the United States or Montana Constitution. (2-10-103(4), MCA).

Section 2-10-104, MCA, requires the Montana Attorney General to develop guidelines, including a checklist, to assist agencies in determining whether an agency action has taking or damaging implications. A completed Attorney General checklist for the proposed rule amendments is attached. Based on the guidelines provided by the Attorney General, the proposed rule amendments do not constitute an "action with taking or damaging implications" in violation of the United States or Montana Constitutions.

Attachment: Attorney General HB 311 Checklist

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST  
MAR Notice No. 17-389

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS  
UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO	
<u>  X  </u>	<u>      </u>	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
<u>      </u>	<u>  X  </u>	2. Does the action result in either a permanent or indefinite physical occupation of private property?
<u>      </u>	<u>  X  </u>	3. Does the action deprive the owner of all economically viable uses of the property?
<u>      </u>	<u>  X  </u>	4. Does the action deny a fundamental attribute of ownership?
<u>      </u>	<u>  X  </u>	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is NO, skip questions 5a and 5b and continue with question 6.]
<u>      </u>	<u>      </u>	5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
<u>      </u>	<u>      </u>	5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
<u>      </u>	<u>  X  </u>	6. Does the action have a severe impact on the value of the property?
<u>      </u>	<u>  X  </u>	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is NO, do not answer questions 7a through 7c.]
<u>      </u>	<u>      </u>	7a. Is the impact of government action direct, peculiar, and significant?

\_\_\_\_\_

7b. Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?

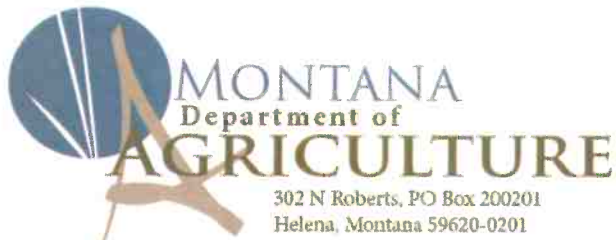
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7c. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implication exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)



Steve Bullock  
Governor

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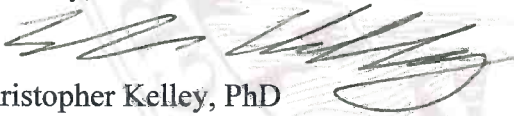
Hillary Houle  
Director Office Support Coordinator  
Department of Environmental Quality  
P.O. Box 200901  
Helena, Montana 59620-0901

RE: Proposed Changes to Water Quality Standards

Dear Ms. Houle,

In the proposed draft 2017 Department Circular DEQ-7 the reference dose (RfD) used to calculate the water quality standard for the pesticide Pinoxaden (NOA 407855) and its metabolites Pinoxaden NOA 407854 and Pinoxaden NOA 447204 is 0.0006 mg/kg/day. This value is significantly lower than the RfD reported by the EPA in their 2017 Human Health Benchmarks for Pesticides of 0.3 mg/kg/day. I request the water quality standard for Pinoxaden be recalculated with the EPA's current RfD (0.3mg/kg/day) in the proposed draft 2017 Department Circular DEQ-7.

Sincerely,



Christopher Kelley, PhD  
Supervising Hydrologist/  
Groundwater Protection Program Manager  
Montana Department of Agriculture  
302 N. Roberts St.  
Helena, MT 59602  
(406)444-5422

Before the Board of Environmental Review of the State of Montana

In the matter of the amendment of ARM )  
17.24.645, 17.24.646, 17.30.502, 17.30.607, )  
17.30.608, 17.30.609, 17.30.610, 17.30.611, )  
17.30.619, 17.30.621, 17.30.622, 17.30.623, )  
17.30.624, 17.30.625, 17.30.626, 17.30.627, )  
17.30.628, 17.30.629, 17.30.641, 17.30.646 )  
17.30.650, 17.30.651, 17.30.652, 17.30.653, )  
17.30.654, 17.30.655, 17.30.656, 17.30.657, ) Presiding Officer Report  
17.30.702, 17.30.715, 17.30.1001, )  
17.30.1007, 17.30.1322, 17.36.345, )  
17.55.109, 17.56.507, and 17.56.608, )  
pertaining to ground and surface water )  
monitoring, definitions, use and )  
classification standards, and adoption by )  
reference )

On February 10, 2017, the undersigned presided over and conducted the public hearing held in Room 111 of the Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to take public comment on amendments to the above listed administrated rules. The rules pertain to ground and surface water monitoring, definitions, use and classification standards, and adoption by reference.

1. The Notice of Public Hearing was published in the Montana Administrative Register under MAR Notice No. 17-389 on December 23, 2016. A copy of this Notice is attached to this Report.



2. The Hearing commenced at 9:00 a.m., and it was transcribed by Laurie Crutcher. The Department of Environmental Quality was represented by Amy Steinmetz of the Water Quality Standards and Modeling Section.

3. The undersigned announced that persons at the hearing would be given an opportunity to submit their data, views, or arguments concerning the proposed action, either orally or in writing. Details of where to submit written views or arguments were provided. At the hearing, the undersigned identified the MAR notice and read the Notice of Function of Administrative Rule Review Committee as required by Mont. Code Ann. § 2-4-302(7)(a). The rulemaking interested persons list and the opportunity to have names placed on that list were addressed. The Presiding Officer explained the order of presentation.

### **SUMMARY OF THE HEARING**

4. Ms. Stienmetz provided a brief statement regarding the amendments the Department's recommendation for the amendment of the rules.

5. No other persons provided comments at the hearing.

### **SUMMARY OF WRITTEN MATERIALS**

6. The Department received written comments from Christopher Kelley, PhD, Supervising Hydrologist/Groundwater Protection Program Manager at the Montana Department of Agriculture. Mr. Kelley stated the reference dose used to calculate the water quality standard for the pesticide Pinoxaden and its

metabolites is significantly lower than the reference dose reported by the EPA. Kelley requested the water quality standard for Pinoxaen be recalculated with the EPA's current referenced dose.

7. The Department submitted a Memorandum, with HB 521 and HB 311 reviews of the proposed amendments and a Private Property Assessment Act Checklist. That memorandum is attached to this report.

8. The period to submit comments ended 5:00 p.m. on February 20, 2017.

### **PRESIDING OFFICER COMMENTS**

9. The Board has authority to undertake this rulemaking pursuant to Montana Code Annotated §§ 82-4-204, 75-5-301, 80-15-105, 75-5-201, 75-5-303, 75-5-401, 76-4-104, 75-10-702, 75-10-704, 75-11-319, and 75-11-505.

10. House Bill 521 (1995) generally provides the Board may not adopt a rule that is more stringent than comparable federal regulations or guidelines, unless the Board makes written findings after public hearing and comment. The proposed amendments are not more stringent than a comparable federal regulation or guideline. Therefore written findings are not necessary.

11. House Bill 311 (1995), the Private Property Assessment Act, codified as Mont. Code Ann. § 2-10-101 through -105, provides that a state agency must complete a review and impact assessment prior to taking an action

with taking or damaging implications. The proposed amendments affect real property or water rights. However, the proposed amendments do not have taking or damaging implications. Therefore, no further HB 311 assessment is necessary.

12. The procedures required by the Montana Administrative Procedure Act, including public notice, hearing, and comment, have been followed.

13. The Board may adopt the proposed rule amendments, reject them, or adopt the rule amendments with revisions not exceeding the scope of the public notice.

14. Under Mont. Code Ann. § 2-4-305(7), for the rulemaking process to be valid, the Board must publish a notice of adoption within six months of the date the Board published the notice of proposed rulemaking in the Montana Administrative Register, or by June 12, 2017.

Dated this 2nd day of March, 2017.

/s/ Andres Haladay  
ANDRES HALADAY  
Presiding Officer

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW  
AND THE DEPARTMENT OF ENVIRONMENTAL QUALITY  
OF THE STATE OF MONTANA

In the matter of the amendment of	)	NOTICE OF PUBLIC HEARING
ARM 17.24.645, 17.24.646,	)	ON PROPOSED AMENDMENT
17.30.502, 17.30.607, 17.30.608,	)	
17.30.609, 17.30.610, 17.30.611,	)	(RECLAMATION)
17.30.619, 17.30.621, 17.30.622,	)	(WATER QUALITY)
17.30.623, 17.30.624, 17.30.625,	)	(SUBDIVISIONS)
17.30.626, 17.30.627, 17.30.628,	)	(CECRA)
17.30.629, 17.30.641, 17.30.646	)	(UNDERGROUND STORAGE
17.30.650, 17.30.651, 17.30.652,	)	TANKS)
17.30.653, 17.30.654, 17.30.655,	)	
17.30.656, 17.30.657, 17.30.702,	)	
17.30.715, 17.30.1001, 17.30.1007,	)	
17.30.1322, 17.36.345, 17.55.109,	)	
17.56.507, and 17.56.608, pertaining	)	
to ground and surface water	)	
monitoring, definitions, use and	)	
classification standards, and adoption	)	
by reference	)	

TO: All Concerned Persons

1. On \_\_\_\_\_, 2016, at \_\_\_:00 a.m., the Board of Environmental Review and the Department of Environmental Quality will hold a public hearing at hearing in Room \_\_\_\_ of the Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to consider the proposed amendment of the above-stated rules.

2. The board and department will make reasonable accommodations for persons with disabilities who wish to participate in this rulemaking process or need an alternative accessible format of this notice. If you require an accommodation, contact Denise Hartman, Administrative Rules Coordinator, no later than 5:00 p.m., \_\_\_\_\_ 2016, to advise us of the nature of the accommodation that you need. Please contact Denise Hartman at Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2630; fax (406) 444-4386; or e-mail dhartman2@mt.gov.

3. The rules proposed to be amended provide as follows, stricken matter interlined, new matter underlined:

17.24.645 GROUND WATER MONITORING (1) through (5) remain the same.

(6) Methods of sample collection, preservation, and sample analysis must be conducted in accordance with 40 CFR Part 136 titled "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (July ~~2003~~ 2015) and the department's

document titled "Department Circular DEQ-7, Montana Numeric Water Quality Standards," ~~October 2012~~ [effective month and year of this rule amendment] edition. Copies of Department Circular DEQ-7 are available at the Department of Environmental Quality, 1520 E. 6th Avenue, P.O. Box 200901, Helena, MT 59620-0901. Sampling and analyses must include a quality assurance program acceptable to the department.

(7) and (8) remain the same.

AUTH: 82-4-204, MCA  
IMP: 82-4-231, 82-4-232, MCA

REASON: See reasons below (ARM 17.24.646 and ARM 17.30.502).

17.24.646 SURFACE WATER MONITORING (1) through (5) remain the same.

(6) Methods of sample collection, preservation, and sample analysis must be conducted in accordance with 40 CFR Part 136 titled "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (July 2003 2015) and Part 434 titled "Coal Mining Point Source Category BPT, BAT, BCT Limitations and New Source Performance Standards" (January 2002), and the ~~October 2012~~ [effective month and year of this rule amendment] edition of the department's document titled "Department Circular DEQ-7, Montana Numeric Water Quality Standards." Copies of 40 CFR Part 136, 40 CFR 434, and Department Circular DEQ-7 are available at the Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, MT 59620-0901. Sampling and analyses must include a quality assurance program acceptable to the department.

(7) remains the same.

AUTH: 82-4-204, MCA  
IMP: 82-4-231, 82-4-232, MCA

REASON: See reason statement below (ARM 17.30.502) for DEQ-7 amendment.

Outdated versions of 40 CFR Part 136 are referenced at ARM 17.24.645 and 646, ARM 17.30.619, 641, and 646, ARM 17.30.1007, and ARM 17.30.1322. The board proposes updating these references to the 2015 version in order to stay current with federal requirements and maintain primacy for regulation under the Federal Water Pollution Control Act. A summary of new and revised approved analytical methods in the 2015 version of 40 CFR 136 can be seen in the Federal Register from February 19, 2015. (See 80 Fed. Reg. 8956 available at <https://www.epa.gov/cwa-methods/cwa-methods-regulatory-history>. Copies are also available at the Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, MT 59620-0901.)

17.30.502 DEFINITIONS The following definitions, in addition to those in 75-5-103, MCA, and ARM Title 17, chapter 30, subchapters 6 and 7, apply throughout this subchapter:

MAR Notice No. 17-\_\_\_\_\_

(1) through (13) remain the same.

(14) The board adopts and incorporates by reference Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (~~October 2012~~ [effective month and year of this rule amendment] edition), which establishes water quality standards for toxic, carcinogenic, bioconcentrating, nutrient, radioactive, and harmful parameters. Copies of Department Circular DEQ-7 are available from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

AUTH: 75-5-301, 80-15-105, MCA

IMP: 75-5-301, 80-15-201, MCA

REASON: The proposed Circular DEQ-7 can be viewed on the department's website at <http://deq.mt.gov/Water/WQPB/Standards>. Modifications to the circulars and the reasons for the modifications are as follows:

Grammar, wordsmithing, and technical edits: The board proposes the following edits to improve the readability, searchability, and accuracy of DEQ-7: adding units to all columns in the table; correcting the spelling of Indeno(1,2,3-cd)pyrene; and using dashes instead of hyphens throughout the document and noting in the introduction that dashes must be used for the search function to work properly. Finally, PCBs is not possessive and the apostrophe has been removed in order to be consistent with the department's editorial guidelines.

The board also proposes removing the numbers assigned by N. Irving Sax (SAX) to dangerous materials. These numbers are taken from Dangerous Properties of Industrial Materials. They are not available for all chemicals included in DEQ-7. Additionally, the board found that users seeking SAX numbers obtain them directly from SAX's Dangerous Properties of Industrial Materials rather than obtaining information within DEQ-7. Chemical Abstract Service Registry Numbers (CASRN) and National Institute for Occupational Safety and Health (NIOSH) numbers are included in DEQ-7. These numbers are much more widely used chemical identifiers. CASRN and NIOSH numbers will continue to be maintained and updated in DEQ-7. However, the board proposes removing SAX numbers to avoid unnecessary updates to information that is not essential in DEQ-7.

The board proposes to edit the wording in footnote (1) as follows to remove confusion about the origin of the harmful category in DEQ-7: "Footnote (1) discusses the categories of parameters (harmful, toxic, or carcinogenic)." In the previous version of DEQ-7 the harmful category was mentioned separately from the other two, and it was unclear whether it was intended as a separate category.

Correction of errors: The board proposed a correction of errors in the human health criterion for dioxin in surface water listed in DEQ-7, which is  $5 \times 10^{-9}$ . Dioxin is a priority pollutant and EPA's human health criterion for dioxin with a  $1 \times 10^{-6}$  excess lifetime cancer risk is  $5 \times 10^{-9}$ . Section 75-5-301(2)(a), MCA, requires that the criteria be based on an excess lifetime cancer risk level of  $1 \times 10^{-5}$ . The board proposes correcting the surface water human health criterion for dioxin to  $5 \times 10^{-8}$  in order to comply with the statute.

The board proposes to correct a misplaced decimal place in the criteria for beta emitters and gamma emitters. DEQ-7 currently has both parameters set at 0.4 millirem (mrem) per yr. The EPA maximum contaminant levels (MCL), which DEQ-7

references for beta emitters and gamma emitters, are both listed at 4 mrems/yr. Section 75-5-203, MCA, states that Montana's water quality standards cannot be more stringent than federal standards unless the board finds evidence that a more stringent standard is necessary to protect public health. The board does not have evidence that a more stringent standard is necessary to protect human health, and proposes correcting the human health criteria for beta emitters and gamma emitters to 4 mrems/year in order to comply with Montana statute.

Footnote (7): The units in footnote (7) are currently stated in micrograms per liter ( $\mu\text{g/L}$ ) in order to provide more consistency throughout the document. However, the equations presented in footnote (7) are written in milligrams per liter ( $\text{mg/L}$ ). The board proposes changing the units for the equations back to  $\text{mg/L}$  for accuracy. The tables in footnote (7) are accurately presented in  $\mu\text{g/L}$  and will remain as such.

Footnote (19): Required reporting values (RRVs) in DEQ-7 are based on data provided by environmental laboratories for the methods they use for each pollutant. Revised footnote (19) provides that, based on the method of calculation and the number of programs that use DEQ-7, there are situations where DEQ may require alternate reporting values to meet analytical and reporting needs. The Montana Pollutant Discharge Elimination System (MPDES) permitting program uses RRVs. For certain parameters, such as total residual chlorine, the RRV in DEQ-7 is not low enough to meet their needs.

Footnote (39): The board is proposing that footnote (39) relating to endosulfans only apply to aquatic life criteria in order to be consistent with 304(a) national recommended water quality criteria (NRWQC). In the aquatic life table of NRWQC, the listings for alpha- and beta-endosulfan include the following note: "This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan." The NRWQC's recommendations for human health do not contain the same note.

EPA has generally approved multiple methods for Clean Water Act pollutants under 40 CFR part 136 and 40 CFR chapter I, subchapters N and O. Some of the approved analytical methods have greater sensitivities and lower minimum levels or method detection limits than other approved methods for the same pollutant. In August 2014, EPA amended its Clean Water Act regulations to state that NPDES program (the federal equivalent of the MPDES program) permit applicants must use EPA-approved sufficiently sensitive analytical methods for analysis of pollutants or pollutant parameters in permits. These sufficiently sensitive methods must be capable of detecting and measuring the pollutants at or below the applicable water quality criteria or permit limits.

By requiring sufficiently sensitive methods for analysis of pollutants under a MPDES permit, MPDES permit writers will have the ability to require an approved method that is sufficiently sensitive to meet the needs of the permit, and DEQ will ensure that data meaningful to the decision-making process will be generated and reported. Therefore, the board proposes including a statement in footnote (19) referring to EPA's sufficiently sensitive method requirement and stating that it supersedes the RRVs in DEQ-7 where the sufficiently sensitive methods generate lower reporting limits than those required by the RRVs.

Updates to human health criteria: In June 2015, EPA updated ambient water quality criteria for the protection of human health for 94 chemical pollutants. These

updated criteria reflect the latest scientific information and EPA policies, including updated body weight, drinking water consumption rate, fish consumption rate, bioaccumulation factors, health toxicity values, and relative source contributions. (See 80 Fed. Reg. 36986 (June 29, 2015) available at <https://www.epa.gov/wqc/human-health-water-quality-criteria>. Copies are also available at the Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, MT 59620-0901). The board proposes adoption of these updated human health criteria and revisions to the introduction of DEQ-7 to reflect the updated exposure inputs (drinking water intake was updated from 2 liters of water to 2.4 liters of water, the average adult body weight was updated from 70 kilograms (kg) to 80 kg, and the fish consumption rate was updated from 17.4 grams per day to 22 grams per day). The board also proposes revising the source of the criteria in DEQ-7 consistent with EPA's recommended criteria (e.g., chlorobenzene changes from MCL to priority pollutant (PP)).

The board also proposes updating an additional 67 human health criteria in DEQ-7. These criteria are primarily pesticides for which EPA and DEQ have calculated health advisories. They are being recalculated using EPA's 2015 adopted exposure inputs described above in order to remain consistent with federal requirements.

The board proposes updating the human health criterion for total trihalomethanes. This criterion is based on the Safe Drinking Water Act maximum contaminant level. This change is proposed to make DEQ-7 consistent with federal requirements and DEQ's drinking water program.

Addition of new human health criterion: Dinitrophenols is an EPA 304(a) recommended criterion not currently listed in DEQ-7. The board proposes including this pollutant in DEQ-7 for consistency and compliance with federal regulations.

Updates to aquatic life criteria: The board proposes adoption of carbaryl as new aquatic life criteria and revisions to the cadmium aquatic life criteria consistent with the EPA 304(a) recommended criteria. For more information see: <https://www.epa.gov/wqc/aquatic-life-criteria-carbaryl> and <https://www.epa.gov/wqc/aquatic-life-criteria-cadmium>. Copies are also available at the Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, MT 59620-0901.

Addition of new pesticides: The Montana Agricultural Chemical Groundwater Protection Act requires the board to adopt pesticide human health criteria for groundwater when new pesticides without criteria are found in groundwater in Montana. New pesticides discovered in groundwater in Montana for which criteria have been calculated include clothianidin, glufosinate ammonium, saflufenacil, thiamethoxam, and sulfentrazone.

Removal of criteria for color, turbidity, pH, and temperature: The board proposes removal of color, turbidity, pH, and temperature from DEQ-7. The purpose of DEQ-7 is to house numeric water quality criteria. The criteria for color, turbidity, pH, and temperature describe the values for those criteria based on natural conditions. In some stream classifications, these criteria reflect a slight variation of the natural condition. Natural conditions vary based on many factors, including changes in season and flow. Because color, turbidity, pH, and temperature do not have a set maximum value, they are not true numeric criteria. They are narrative



parameters because they rely on determination of the natural condition of the parameter in the receiving water.

In addition to removing these narrative criteria from the table in DEQ-7, the board proposes removal of a sentence in the introduction of DEQ-7 that provides examples of numeric standards that change with each stream classification because it erroneously lists color, turbidity, pH, and temperature as numeric criteria. Also, footnote (18) is specific to narrative criteria and is only used for pH and color, and therefore is proposed to be removed from DEQ-7. These changes are necessary to resolve confusion about how these criteria should be implemented. Additionally, the criteria for color, turbidity, pH, and temperature are described in detail in the use class descriptions in ARM 17.30 subchapter 6 and their inclusion in DEQ-7 is redundant and unnecessary.

Trigger Values for Nitrate: The board proposes correcting the trigger values for nitrate (as nitrogen [N]) and nitrate plus nitrite (as N) as follows: surface water trigger values are 10 micrograms per liter (µg/L), ground water trigger values are 5,000 µg/L. The trigger values would also include a reference to ARM 17.30.715. Trigger values are used to determine if an increase in concentration of a toxic parameter is nonsignificant per the nondegradation rules ARM 17.30.701, et seq. Due to clerical errors, "10" was omitted from both of the parameters above in the 2012 version of DEQ-7. Because of the removal of the "10," the trigger values read that the surface water trigger value is 5,000 µg/L, and that the ground water trigger value is included in ARM 17.30.715. This is incorrect and makes assessment of nondegradation for nitrate (as N) and nitrate plus nitrite (as N) impractical. The proposed changes would allow for nondegradation review of these two parameters as intended.

The board also proposes to include a reference to DEQ Circular 12 in the introduction to DEQ-7. This is necessary for clarity and consistency between the two documents.

17.30.607 WATER-USE CLASSIFICATIONS--CLARK FORK COLUMBIA RIVER DRAINAGE EXCEPT THE FLATHEAD AND KOOTENAI RIVER DRAINAGES

(1) The water-use classifications adopted for the Clark Fork of the Columbia River drainage are as follows:

- (a) Clark Fork River drainage except waters listed in (1)(a)(i) through (xv) ..... B-1
- (i) through (vii) remain the same.
- (viii) Tin Cup Joe Creek drainage to the Deer Lodge water supply intake (approximately at latitude 46.3892, longitude -112.8543) ..... A-Closed
- (ix) remains the same.
- (x) Fred Burr Lake and headwaters from source to the outlet of the lake (Philipsburg water supply at approximate latitude 46.3096, longitude -113.1746) ..... A-Closed
- (xi) South Boulder Creek drainage to the Philipsburg water supply intake (approximately at latitude 46.3447, longitude -113.2266) ..... A-1
- (xii) Rattlesnake Creek drainage to the Missoula water supply intake (approximately at latitude 46.9149, longitude -113.9638) ..... A-Closed
- (xiii) through (xv) remain the same.

AUTH: 75-5-201, 75-5-301, MCA  
IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.611).

17.30.608 WATER-USE CLASSIFICATIONS--FLATHEAD RIVER

DRAINAGE (1) The water-use classifications adopted for the Flathead River are as follows:

- (a) through (a)(viii) remain the same.
- (b) Flathead Lake north of the Flathead Indian Reservation and waters of its tributaries from Flathead River inlet to U.S. Highway 93 bridge at Polson that lie outside of the Flathead Indian Reservation boundary except Swan River as listed in (1)(b)(i) and portions of Hellroaring Creek as listed in (1)(b)(i) through (iii) but including Swan Lake proper and Lake Mary Ronan proper..... A-1
  - (i) remains the same.
  - (ii) ~~Hellroaring Creek drainage to the Polson water supply intake~~..... A-Closed
  - (iii) ~~Remainder of Hellroaring Creek drainage~~..... B-1
- (c) Waters outside of the Flathead Indian Reservation that are tributary to the Flathead River drainage below the highway bridge at Polson to confluence with Clark Fork River except tributaries the Little Bitterroot River mainstem listed in (1)(c)(i) through (viii) and including the Flathead River drainage west of the Flathead Indian Reservation boundary..... B-1
  - (i) ~~Second Creek drainage to the Ronan water supply intake (approximately at latitude 47.546, longitude -114.0268)~~..... A-Closed
  - (ii) ~~Crow Creek (mainstem) from road crossing in section 16, T20N, R20W to the Flathead River~~..... B-2
  - (iii) ~~Little Bitterroot River (mainstem) from Hubbart Reservoir dam to the Flathead River Indian Reservation boundary~~..... B-2
  - (iv) ~~Hot Springs Creek drainage to the Hot Springs water supply intake (approximately at latitude 47.6096, longitude -114.688)~~..... A-Closed
  - (v) ~~Hot Springs Creek (mainstem) from the Hot Springs water supply intake to the Little Bitterroot River~~..... C-3
  - (vi) ~~Tributaries to Hot Springs Creek (if any) from the Hot Springs water supply intake to the Little Bitterroot River~~..... B-1
  - (vii) ~~Mission Creek drainage to the St. Ignatius water supply intake~~..... A-1
  - (viii) ~~Mission Creek (mainstem) from U.S. Highway No. 93 crossing to the Flathead River~~..... B-2

AUTH: 75-5-201, 75-5-301, MCA  
IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.611).

17.30.609 WATER-USE CLASSIFICATIONS--KOOTENAI RIVER

DRAINAGE (1) The water-use classifications adopted for the Kootenai River are as follows:

- (a) All waters except those listed in (1)(a)(i) through (iv)..... B-1

- (i) Deep Creek drainage (tributary to the Tobacco River) to the Fortine water supply intake (approximately at latitude 48.7631, longitude -114.8980) ..... A-1
- (ii) Rainy Creek drainage to the W.R. Grace Company water supply intake (approximately at latitude 48.4485, longitude -115.4203) ..... A-1
- (iii) Rainy Creek (mainstem) from the W.R. Grace Company water supply intake (approximately at latitude 48.4485, longitude -115.4203) to the Kootenai River ..... C-1
- (iv) remains the same.

AUTH: 75-5-201, 75-5-301, MCA  
 IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.611).

17.30.610 WATER-USE CLASSIFICATIONS--MISSOURI RIVER DRAINAGE EXCEPT YELLOWSTONE, BELLE FOURCHE, AND LITTLE MISSOURI RIVER DRAINAGES (1) The water-use classifications adopted for the

Missouri River are as follows:

- (a) Missouri River drainage to and including the Sun River drainage except tributaries listed in (1)(a)(i) through (xiii) ..... B-1
  - (i) through (iv) remain the same.
  - (v) Rattlesnake Creek drainage to the Dillon water supply intake (approximately at latitude 45.2442, longitude -112.7953) ..... A-1
  - (vi) Indian Creek drainage to the Sheridan water supply intake (approximately at latitude 45.4787, longitude -112.1592) ..... A-1
  - (vii) Basin Creek drainage to the Basin water supply intake (approximately at latitude 46.2820, longitude -112.2730) ..... A-1
  - (viii) through (c) remain the same.
- (d) Marias River drainage except waters on the Blackfeet Indian Reservation and the tributaries and segments listed in (1)(d)(i) through (vi) ..... B-2
  - (i) Cutbank Creek drainage except waters listed in (1)(d)(i)(A) and ~~(B)~~ ..... B-1
    - ~~(A) Willow Creek (mainstem) from the Montana Highway No. 464 crossing about one-half mile north of Browning to Cutbank Creek~~ ..... B-2
    - ~~(B) Cutbank Creek (mainstem) from Old Maids Coulee near Cut Bank to Two Medicine Creek~~ ..... B-2
  - (ii) Two Medicine Creek drainage to the Blackfeet Indian Reservation Boundary except for the waters listed in (1)(d)(ii)(A) through ~~(C)~~ (B) ..... B-1
    - (A) Midvale Creek drainage to the East Glacier water supply intake Blackfeet Indian Reservation Boundary ..... A-Closed
    - (B) Summit Creek drainage to the Summit water supply intake (approximately at latitude 48.3184, longitude -113.3527) ..... A-Closed
    - ~~(C) Two Medicine Creek (mainstem) from Badger Creek to Birch Creek~~ ..... B-2
  - (iii) through (vi) remain the same.
- (e) Missouri River drainage from Marias River to Fort Peck Dam except waters listed in (1)(e)(i) through ~~(vi)~~ (v) ..... C-3
  - (i) through (D) remain the same.
  - (iv) ~~Cow Creek drainage to but excluding Al's Creek~~ ..... B-1

- (v) Musselshell River drainage to Deadman's Basin diversion canal above Shawmut except for the water listed in (1)(e)(v)(A) ..... B-1  
(A) remains the same.
- (vi) (v) Musselshell River drainage below Deadman's Basin diversion canal above Shawmut except for the waters listed in (1)(e)(iv)(v)(A) through (D) ..... C-3  
(A) through (f) remain the same.
- (g) ~~Milk River drainage from source (or from the Glacier National Park Boundary) to the eastern mainstem crossing of the International Boundary~~ ..... B-1
- (h) Milk River drainage from the International Boundary to the Missouri River except waters within tribal boundaries and the tributaries listed in (1)(h)(g)(i) through (iv) ..... B-3  
(i) remains the same.
- (ii) Big Sandy Creek drainage from the Rocky Boy's Indian Reservation Boundary to Town of Big Sandy infiltration wells (approximately at latitude 48.1831, longitude -110.0851)..... B-1  
(iii) remains the same.
- (iv) Peoples Creek drainage ~~to and including the South Fork of Peoples Creek drainage~~ except waters within the Fort Belknap Indian Reservation ..... B-1
- (i) (h) Missouri River drainage from Milk River to North Dakota boundary except tribal waters and waters listed in (1)(i)(h)(i) through (iv) (iii) ..... C-3  
(i) remains the same.
- (ii) ~~Wolf Creek drainage near Wolf Point~~..... B-2
- (iii) Antelope Creek drainage near Antelope ..... B-3
- (iv) (iii) Poplar River drainage to the Fort Peck Indian Reservation boundary ..... B-2

AUTH: 75-5-201, 75-5-301, MCA  
 IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.611).

17.30.611 WATER-USE CLASSIFICATION--YELLOWSTONE RIVER DRAINAGE (1) The water-use classifications adopted for the Yellowstone River are as follows:

- (a) Yellowstone River drainage to the Laurel water supply intake (approximately at latitude ~~45.6557~~ 45.6545, longitude ~~-108.7594~~ -108.7590)..... B-1
- (b) Yellowstone River drainage from the Laurel water supply intake (approximately at latitude 45.6545, longitude -108.7590) to the Billings water supply intake (approximately at latitude 45.7745, longitude -108.4778) except waters on the Crow Indian Reservation and the tributaries listed in (1)(b)(i) through (iii) ..... B-2  
(i) through (iii) remain the same.
- (c) Yellowstone River drainage from the Billings water supply intake to the North Dakota state line excluding waters on the Crow Indian Reservation and the Northern Cheyenne Indian Reservation and including the Big Horn River drainage except the waters listed in (1)(c)(i) through (ix) (vii) ..... C-3  
(i) remains the same.
- (ii) Pryor Creek drainage ~~to Interstate 90~~ outside the Crow Indian

Reservation boundary ..... B-1  
 (iii) Big Horn drainage above but excluding Williams Coulee near Hardin and excluding waters within the Crow Indian Reservation..... B-1  
 (iv) Little Big Horn drainage above and including Lodgegrass Creek drainage near Lodge Grass..... B-1  
 (v) Little Big Horn River drainage below Lodge Grass Creek..... B-2  
 (vi) Big Horn River mainstem from Williams Coulee the Crow Indian Reservation boundary to Yellowstone River ..... B-2  
 (vii) through (ix) remain the same, but are renumbered (v) through (vii).

AUTH: 75-5-201, 75-5-301, MCA  
 IMP: 75-5-301, MCA

REASON: The board proposes updating the surface water use designations that use drinking water intakes by including a more specific, defined endpoint location using latitude and longitude. This will remove confusion about where specific use classes begin and end on a stream.

The board proposes removing tribal waters from Montana's use class designations because the State of Montana does not have jurisdiction over tribal waters, and respects the water quality standards, including use class designations, for tribal waters set by the respective jurisdictional agencies. Therefore, it is unnecessary to include use class designations for these waters in state standards.

ARM 17.30.609(1)(a) references "waters except those listed in (1)(a)(i)," and should reference "waters except those listed in (1)(a)(i) through (iv)." The board proposes making this revision for accuracy.

17.30.619 INCORPORATIONS BY REFERENCE (1) The board adopts and incorporates by reference the following state and federal requirements and procedures as part of Montana's surface water quality standards:

(a) Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (~~October 2012~~ [effective month and year of this rule amendment] edition), which establishes numeric water quality criteria for toxic, carcinogenic, bioconcentrating, radioactive, and harmful parameters and also establishes human health-based water quality criteria for the following specific nutrients with toxic effects:

(i) through (b) remain the same.

(c) 40 CFR Part 136 (July 1, ~~2014~~ 2015), which establishes guidelines and procedures for the analysis of pollutants;

(d) 40 CFR 131.10(g), (h) and (j) (2000), which establishes criteria and guidelines for conducting a use attainability analysis; ~~and~~

(e) Department Circular DEQ-12A, entitled "Montana Base Numeric Nutrient Standards" (July 2014 edition), which establishes numeric water quality standards for total nitrogen and total phosphorus in surface waters; and

(f) The compliance schedule authorizing provision contained in the Montana Pollutant Discharge Elimination System Permit regulations at ARM 17.30.1350(1).

(2) and (3) remain the same.

AUTH: 75-5-201, 75-5-301, MCA  
IMP: 75-5-301, 75-5-313, MCA

REASON: See reason for ARM 17.30.502, setting forth reasons for updates and revisions to DEQ-7.

The board also proposes to incorporate by reference the authorizing provision for compliance schedules for water quality-based effluent limitations (WQBELs) contained in the MPDES rules at ARM 17.30.1350(1) because in 2015, EPA revised 40 CFR 131.15, requiring EPA review and approval of state rules authorizing compliance schedules for water quality-based effluent limits in MPDES permits. EPA considers such authorizing provisions to be water quality standards.

Compliance schedules are Clean Water Act NPDES permitting tools that can be used in situations in which a discharger is unable to immediately achieve compliance with effluent limitations based on water quality standards. They allow dischargers additional time to take steps (e.g., planning and construction of required facilities) necessary to achieve compliance with such effluent limitations. (See 80 Fed. Reg. 51020, 51041 (August 21, 2015) available at <https://www.epa.gov/wqs-tech/final-rulemaking-update-national-water-quality-standards-regulation>. Copies are also available at the Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, MT 59620-0901.)

ARM 17.30.1350(1) gives the MPDES program authority to use compliance schedules and details their requirements. This provision was adopted in 1989, but has not been submitted to EPA for approval because it was not considered a water quality standard at that time. The state will submit this provision to EPA in order to comply with the new regulatory requirement.

The board also proposes to update the reference to 40 CFR Part 136 to reference the most current regulation.

17.30.621 A-CLOSED CLASSIFICATION STANDARDS (1) and (2) remain the same.

(3) No person may violate the following specific water quality standards for waters classified A-Closed:

(a) The geometric mean number of Escherichia coli bacteria may not exceed 32 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 64 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(b) through (i) remain the same.

AUTH: 75-5-201, 75-5-301, MCA  
IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.622 A-1 CLASSIFICATION STANDARDS (1) and (2) remain the

same.

(3) No person may violate the following specific water quality standards for waters classified A-1:

(a) The geometric mean number of Escherichia coli bacteria may not exceed 32 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 64 colony forming units per 100 milliliters during any 30-day period if resulting from domestic sewage. Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(b) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.623 B-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified B-1:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.624 B-2 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified B-2:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.625 B-3 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified B-3:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) and through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.626 C-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified C-1:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.627 C-2 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified C-2:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.628 I CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified I:



(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to seasons as follows:

(i) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.629 C-3 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified C-3:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) through (k) remain the same.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, 75-5-313, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.641 SAMPLING METHODS (1) Water quality monitoring, including methods of sample collection, preservation, and analysis used to determine compliance with the standards must be in accordance with 40 CFR Part 136 (July 1, ~~2007~~ 2015) or other method allowed by the department.

AUTH: 75-5-201, 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: The board proposes to update the reference to 40 CFR Part 136 to reference the most current regulation.

17.30.646 BIOASSAYS (1) Bioassay tolerance concentrations must be determined using the latest available research results for the materials, by bioassay tests procedures for simulating actual stream conditions as set forth in 40 CFR Part 136 (July 1, ~~2007~~ 2015). Any bioassay studies made must be made using a representative sensitive local species and life stages of economic or ecological importance, except that other species whose relative sensitivity is known may be used when there is difficulty in providing the more sensitive species in sufficient numbers or when such species are unsatisfactory for routine confined bioassays. All bioassay methods and species selections must be approved by the department.

AUTH: 75-5-201, 75-5-301, MCA  
IMP: 75-5-301, MCA

REASON: The board proposes to update the reference to 40 CFR Part 136 to reference the most current regulation.

17.30.650 D-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified D-1:

(a) remains the same.

(b) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(3) remains the same.

AUTH: 75-5-301, MCA  
IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.651 D-2 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified D-2:

(a) through (c) remain the same.

(d) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

AUTH: 75-5-301, MCA  
IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.652 E-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified E-1:

(a) remains the same.

(b) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not

exceed 1,260 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(3) remains the same.

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.653 E-2 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified E-2:

(a) through (c) remain the same.

(d) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.654 E-3 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified E-3:

(a) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(b) through (3) remain the same.

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.655 E-4 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified E-4:

(a) and (b) remain the same.

(c) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: See reason statement below (ARM 17.30.657).

17.30.656 E-5 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified E-5:

(a) remains the same.

(b) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(3) remains the same.

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: See reason statement (ARM 17.30.657).

17.30.657 F-1 CLASSIFICATION STANDARDS (1) remains the same.

(2) No person may violate the following specific water quality standards for waters classified F-1:

(a) through (c) remain the same.

(d) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10% percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: Traditional plate tests for Escherichia coli (E. coli), including membrane filtration, estimate or count "colonies" of bacteria reported as colony forming units (cfu). These provide a direct count of an indicator organism (E. coli) in water based on the development of colonies in/on media and a calculation is performed. While these microscopic counts may be more accurate, they are costly and time consuming, and the problem of bacteria viability remains. Very few tests are conducted to determine live and dead colonies. Exact counts are generally not feasible to obtain. Newer tests, such as Colilert report data, are reported as most probable number (mpn) which is a statistical representation of what level of E. coli is likely present in a sample. While mpn and cfu are not entirely equivalent, for the purposes of reporting, these terms are currently used interchangeably by the EPA. EPA has approved both these methods for enumeration in federal rule for ambient water (40 CFR, 2003) and for wastewater and sludge (40 CFR, 2007). The board proposes adding mpn to the E. coli surface water criteria so that E. coli may be reported to the department in either cfu or mpn.

17.30.702 DEFINITIONS The following definitions, in addition to those in 75-5-103, MCA, apply throughout this subchapter (Note: 75-5-103, MCA, includes definitions for "base numeric nutrient standards," "degradation," "existing uses," "high quality waters," "mixing zone," and "parameter"):

(1) through (7) remain the same.

(8) "High quality waters" is defined in 75-5-103(10)(13), MCA, and does not include Class I surface waters (ARM 17.30.628) or Class III or Class IV ground waters (ARM 17.30.1006(3) through (4)).

(9) through (26) remain the same.

(27) The board adopts and incorporates by reference:

(a) Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (~~October 2012~~ effective month and year of this rule amendment edition), which establishes water quality criteria for toxic, carcinogenic, bioconcentrating, radioactive, and harmful parameters and also establishes human health-based water quality criteria for the following specific nutrients with toxic effects:

(i) through (c) remain the same.

(d) 40 CFR Part 136 (July 1, ~~2007~~ 2015) which contains guidelines establishing test procedures for the analysis of pollutants.

(e) remains the same.

AUTH: 75-5-301, 75-5-303, MCA

IMP: 75-5-303, MCA

REASON: See reasons for ARM 17.30.502 setting forth reasons for updates and revisions to DEQ-7.

ARM 17.30.702(8) references the Montana Code Annotated definition of high quality waters as 75-5-103(10). Because of revisions to that statute, that definition is

MAR Notice No. 17-\_\_\_\_\_

now at 75-5-103(13). The board proposes to remove the reference to the subsection in order to make the citation accurate and to eliminate the need to amend the rule because of a future amendment to the statute. The board also proposes to update the reference to 40 CFR Part 136 to reference the most current regulations.

17.30.715 CRITERIA FOR DETERMINING NONSIGNIFICANT CHANGES IN WATER QUALITY (1) The following criteria will be used to determine whether certain activities or classes of activities will result in nonsignificant changes in existing water quality due to their low potential to affect human health or the environment. These criteria consider the quantity and strength of the pollutant, the length of time the changes will occur, and the character of the pollutant. Except as provided in (2), changes in existing surface or ground water quality resulting from the activities that meet all the criteria listed below are nonsignificant, and are not required to undergo review under 75-5-303, MCA:

(a) through (e) remain the same.

(f) changes in the quality of water for any harmful parameter, nutrients listed at ARM 17.30.631, and parameters listed in Department Circular DEQ-12A, except as specified in (1)(g), for which water quality standards have been adopted other than carcinogenic, bioconcentrating, or toxic parameters, in either surface or ground water, if the changes outside of a mixing zone designated by the department are less than ten percent of the applicable standard and the existing water quality level is less than 40 percent of the standard;

(g) through (4) remain the same.

AUTH: 75-5-301, 75-5-303, MCA

IMP: 75-5-303, MCA

REASON: Most numeric nutrient standards for Montana are housed in Circular DEQ-12A and were adopted by the board in 2014. However, the board previously adopted numeric nutrient standards on the Clark Fork River and these are contained in ARM 17.30.631. During the adoption of DEQ-12A, which included the circular's inclusion in the nondegradation nonsignificance criteria (ARM 17.30.715), the earlier-adopted nutrient standards for the Clark Fork River were inadvertently excluded from nondegradation review. This change will address this oversight. Although benthic algal chlorophyll a criteria are included with the nitrogen and phosphorus criteria in 17.30.631, chlorophyll a is not subject to nondegradation review under ARM 17.30.715(1)(f). This is because nitrogen and phosphorus are the nutrient parameters included in the rule, and growth of chlorophyll a is the result of an overabundance of those nutrients. Therefore, controlling nitrogen and phosphorus through nondegradation will prevent overgrowth of chlorophyll a and will ensure that the chlorophyll a criteria are met.

17.30.1001 DEFINITIONS The following definitions, in addition to those in 75-5-103, MCA, apply throughout this subchapter:

(1) remains the same.

(2) "DEQ-7" means Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (~~October 2012~~ effective month and year of this rule)

amendment] edition), which establishes water quality criteria for toxic, carcinogenic, radioactive, bioconcentrating, nutrient, and harmful parameters.

(a) The board adopts and incorporates by reference Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (~~October 2012~~ [effective month and year of this rule amendment] edition), which establishes water quality criteria for toxic, carcinogenic, bioconcentrating, nutrient, radioactive, and harmful parameters.

(3) through (17) remain the same.

AUTH: 75-5-201, 75-5-401, MCA

IMP: 75-5-301, 75-5-401, MCA

REASON: See reason for ARM 17.30.502 setting forth reasons for update and revisions to DEQ-7.

17.30.1007 SAMPLE COLLECTION, PRESERVATION, AND ANALYSIS METHODS (1) Methods of sample collection, preservation, and sample analysis used to determine compliance with the standards in this subchapter must be in accordance with 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (July ~~2007~~ 2015), or the following:

(a) through (4) remain the same.

AUTH: 75-5-301, MCA

IMP: 75-5-301, MCA

REASON: The board proposes to update the reference to 40 CFR Part 136 to reference the most current regulation.

17.30.1322 APPLICATION FOR A PERMIT (1) through (17) remain the same.

(18) The board adopts and incorporates by reference the following federal regulations as part of the Montana pollutant discharge elimination system. Copies of these federal regulations may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

(a) 40 CFR Part 136 (July 1, ~~2014~~ 2015), which sets forth guidelines establishing test procedures for the analysis of pollutants;

(b) through (f) remain the same.

AUTH: 75-5-201, 75-5-401, MCA

IMP: 75-5-401, MCA

REASON: The board proposes to update the reference to 40 CFR Part 136 to reference the most current regulation.

17.36.345 ADOPTION BY REFERENCE (1) For purposes of this chapter, the department adopts and incorporates by reference the following documents. All references to these documents in this chapter refer to the edition set out below:

MAR Notice No. 17-\_\_\_\_\_

- (a) through (d) remain the same.
- (e) Department Circular DEQ-7, "Montana Numeric Water Quality Standards" (~~October 2012~~ [effective month and year of this rule amendment] edition);
- (f) through (2) remain the same.

AUTH: 76-4-104, MCA

IMP: 76-4-104, MCA

REASON: See ARM 17.30.502, setting forth reasons for update and revisions to DEQ-7.

17.55.109 INCORPORATION BY REFERENCE (1) For the purposes of this subchapter, the department adopts and incorporates by reference:

- (a) Department Circular DEQ-7, "Montana Numeric Water Quality" (~~October 2012~~ [effective month and year of this rule amendment] edition);
- (b) through (5) remain the same.

AUTH: 75-10-702, 75-10-704, MCA

IMP: 75-10-702, 75-10-704, 75-10-711, MCA

REASON: See ARM 17.30.502, setting forth reasons for update and revisions to DEQ-7.

17.56.507 ADOPTION BY REFERENCE (1) For purposes of this subchapter, the department adopts and incorporates by reference:

- (a) Department Circular DEQ-7, "Montana Numeric Water Quality Standards" (~~October 2012~~ [effective month and year of this rule amendment] edition);
- (b) through (3) remain the same.

AUTH: 75-11-319, 75-11-505, MCA

IMP: 75-11-309, 75-11-505, MCA

REASON: See ARM 17.30.502, setting forth reasons for update and revisions to DEQ-7.

17.56.608 ADOPTION BY REFERENCE (1) For purposes of this subchapter, the department adopts and incorporates by reference:

- (a) Department Circular DEQ-7, "Montana Numeric Water Quality Standards" (~~October 2012~~ [effective month and year of this rule amendment] edition);
- (b) through (3) remain the same.

AUTH: 75-11-319, 75-11-505, MCA

IMP: 75-11-309, 75-11-505, MCA

REASON: See ARM 17.30.502, setting forth reasons for update and revisions to DEQ-7.



5. Concerned persons may submit their data, views, or arguments, either orally or in writing, at the hearing. Written data, views, or arguments may also be submitted to Denise Hartman, Administrative Rules Coordinator, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-4386; or e-mailed to dhartman2@mt.gov, no later than 5:00 p.m. \_\_\_\_\_, 2017. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

6. The board and department maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name, e-mail, and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supplies; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Notices will be sent by e-mail unless a mailing preference is noted in the request. Such written request may be mailed or delivered to Denise Hartman, Administrative Rules Coordinator, Department of Environmental Quality, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, e-mailed to Denise Hartman at dhartman2@mt.gov; or may be made by completing a request form at any rules hearing held by the department.

7. Ben Reed, attorney for the department, has been designated to preside over and conduct the hearing.

8. The bill sponsor contact requirements of 2-4-302, MCA, do not apply.

9. With regard to the requirements of 2-4-111, MCA, the department has determined that the amendment of the above-referenced rules will not significantly and directly impact small businesses.

Reviewed by: DEPARTMENT OF ENVIRONMENTAL QUALITY

\_\_\_\_\_  
JOHN F. NORTH  
Rule Reviewer

BY: \_\_\_\_\_  
TOM LIVERS  
Director

Certified to the Secretary of State, \_\_\_\_\_, 2016.

BEFORE THE BOARD OF ENVIRONMENTAL REVIEW  
AND THE DEPARTMENT OF ENVIRONMENTAL QUALITY  
OF THE STATE OF MONTANA

In the matter of the amendment of	)	NOTICE OF ADOPTION
ARM 17.24.645, 17.24.646,	)	
17.30.502, 17.30.607, 17.30.608,	)	(RECLAMATION)
17.30.609, 17.30.610, 17.30.611,	)	(WATER QUALITY)
17.30.619, 17.30.621, 17.30.622,	)	(SUBDIVISIONS)
17.30.623, 17.30.624, 17.30.625,	)	(CECRA)
17.30.626, 17.30.627, 17.30.628,	)	(UNDERGROUND STORAGE
17.30.629, 17.30.641, 17.30.646	)	TANKS)
17.30.650, 17.30.651, 17.30.652,	)	
17.30.653, 17.30.654, 17.30.655,	)	
17.30.656, 17.30.657, 17.30.702,	)	
17.30.715, 17.30.1001, 17.30.1007,	)	
17.30.1322, 17.36.345, 17.55.109,	)	
17.56.507, and 17.56.608 pertaining to	)	
ground and surface water monitoring,	)	
definitions, use and classification	)	
standards, and adoption by reference	)	

TO: All Concerned Persons

1. On December 23, 2016, the Board of Environmental Review and the Department of Environmental Quality published MAR Notice No. 17-389 regarding a public hearing on the proposed amendment of the above-stated rules at page 2372, 2016 Montana Administrative Register, Issue Number 24.

2. The board and the department have amended 17.24.645, 17.24.646, 17.30.502, 17.30.607, 17.30.608, 17.30.609, 17.30.610, 17.30.611, 17.30.619, 17.30.621, 17.30.622, 17.30.623, 17.30.624, 17.30.625, 17.30.626, 17.30.627, 17.30.628, 17.30.629, 17.30.641, 17.30.646 17.30.650, 17.30.651, 17.30.652, 17.30.653, 17.30.654, 17.30.655, 17.30.656, 17.30.657, 17.30.702, 17.30.715, 17.30.1001, 17.30.1007, 17.30.1322, 17.36.345, 17.55.109, 17.56.507, and 17.56.608 exactly as proposed.

3. The following comment was received and appears with the board's response:

COMMENT NO. 1: Commenter stated that the reference dose used by the department to calculate the revised human health standard for the pesticide pinoxaden was significantly lower than the reference dose reported by the EPA in their 2017 Human Health Benchmarks for Pesticides. Commenter requests that the water quality standard for pinoxaden be recalculated using EPA's current reference dose of 0.3 milligrams per kilogram per day.

RESPONSE: EPA's Office of Pesticides updated its Human Health Benchmarks for Pesticides (HHBP) in drinking water in January 2017 to reflect the latest scientific information. The reference dose for pinoxaden changed in the January 2017 HHBP. The board is updating the human health standard for pinoxaden based on the January 2017 reference dose. As a result, DEQ-7 will be modified to incorporate the updated reference dose for pinoxaden. The proposed rule language remains unchanged.

4. No other comments or testimony were received.

Reviewed by:

BOARD OF ENVIRONMENTAL REVIEW

\_\_\_\_\_  
JOHN F. NORTH  
Rule Reviewer

By: \_\_\_\_\_  
JOAN MILES  
Chairman

DEPARTMENT OF ENVIRONMENTAL QUALITY

BY: \_\_\_\_\_  
TOM LIVERS  
Director

Certified to the Secretary of State, \_\_\_\_\_, 2017.